# USDA NATURAL RESOURCES CONSERVATION SERVICE

DELAWARE CONSERVATION
PRACTICE STANDARD

# RECREATION TRAIL AND WALKWAY

CODE 568 (Reported by Ft.)

#### **DEFINITION**

A pathway for pedestrian, equestrian, bicycle and other off-road modes of travel through or to recreation resources.

#### **PURPOSES**

This practice may be applied as part of a resource management system to support one or more of the following purposes:

- Provide or improve recreation access.
- Provide travelways for recreational activities such as walking, horseback riding, bicycling, cross country skiing, and hiking.
- Direct travel away from ecologically sensitive and/or erosion prone areas.
- Minimize on-site and off-site damage to resources during periods of access.

## CONDITIONS WHERE PRACTICE APPLIES

On land areas where prepared paths, trails and walkways are needed for effective and safe access to or through recreation resources.

#### **CONSIDERATIONS**

Assure safe ingress and egress to the trail or walkway.

Consider requirements of Americans with Disabilities Act, where appropriate.

Pedestrian and equestrian trail and walkway grades should generally not exceed 10 percent. Grades for other uses may be steeper such as cross-country skiing, which may be as steep as 50 percent for difficult trails and hiking trails, which may be as steep as 20 percent.

Assure adequate parking for users and an operation and maintenance staging area.

Consider saving and maintaining key trees and other vegetation that have scenic value, provide shade, reduce erosion and runoff, provide habitat for wildlife, and/or add to the visual quality of the area.

Consider adjoining land uses and the proximity to residences, utilities, cultural resources, threatened and endangered species of plants and animals, wetlands, important farmlands, or other environmentally sensitive areas, and areas of special scenic value.

Consider potential ecological and human impacts when planning a trail for use by motorized vehicles.

If the purpose of the trail or walkway is improvement of water quality, the trail or walkway should be (re) located as far away from the waterbody or watercourse as possible. Any work in and/or discharges near streams, wetlands or waterbodies may require a permit from the US Army Corps of Engineers, state water quality (permitting) authority, or local authority.

This practice has the potential to affect National Register listed cultural resources or eligible (significant) cultural resources. These may include archeological, historic, or traditional cultural properties. Care should be taken to avoid adverse impacts to these resources. Follow NRCS state policy for considering cultural

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service.

NRCS - DELAWARE JANUARY 2003

resources during planning.

#### **CRITERIA**

#### Criteria Applicable to All Purposes

This practice must conform to all federal, state, and local laws and regulations.

Plants, landscaping timbers, traffic control measures, wooden walkways, grades, etc. shall be evaluated for effectiveness, aesthetics, and accessibility.

The trail or walkway shall be conducive to the overall recreation area and aesthetically blend with the general landscape and surroundings.

The trail or walkway shall be configured to minimize adverse on-site and off-site impacts such as accelerated erosion, riparian zone degradation, stream channel and streambank damage, hydrology modification, other water resource damage, aesthetics or unacceptable damage to wildlife habitat, fragmentation, or restrict wildlife movement.

<u>Grade</u>. Grades shall be determined by the intended use, location and topography.

<u>Width</u>. The minimum trail or walkway width shall be 4 feet (1.2 m). The width for pedestrian trails may be reduced to a minimum 3 feet (0.9 m) in areas where greater width would adversely affect environmentally sensitive areas.

<u>Side Slopes</u>. Cut and fill slopes shall be stable for the soil material.

**<u>Drainage.</u>** Drainage measures shall be of sufficient size, intervals, and gradient to ensure adequate drainage.

Erosion control. Plans shall include provisions for control of erosion. Disturbed areas shall be established to vegetation as soon as practicable after construction. If soil or climatic conditions precludes the use of vegetation, and protection is needed, non-vegetative means, such as mulches or gravel, may be used. Seedbed preparation, seeding, fertilizing, and mulching shall be according to the appropriate conservation practice standard in the local Field Office Technical Guide. Use vegetation adapted to the site that will accomplish the desired purpose.

Preference shall be given to native plant species. If native plant materials are not adaptable or proven effective for the planned use, then non-native species may be used.

<u>Bridges</u> and <u>Elevated Walkways</u>. Bridges and elevated walkways shall be designed for the expected loading.

**Surfacing.** If surfacing is required for a firm, stable trail, the surfacing material shall be appropriate for the anticipated traffic and operational conditions.

<u>Safety</u>. Safety of the users shall be incorporated into the design. Adequate directional and warning signs, handrails, bridges, and culvert shall be placed as dictated by the site and intended use. Protection from slides and falling rocks shall be provided, where needed.

#### PLANS AND SPECIFICATIONS

Plans and specifications for establishment of this practice shall be prepared in accordance with the previously listed criteria. Plans and specifications shall contain sufficient detail to ensure success of the practice. Documentation shall be in accordance with the section "Supporting Data and Documentation" in this standard.

#### **OPERATION AND MAINTENANCE**

An Operation and Maintenance (O&M) plan shall be prepared for and reviewed with the landowner or operator. The plan shall specify that the treated areas and associated practices are inspected annually and after significant storm events to identify repair and maintenance needs.

### SUPPORTING DATA FOR DOCUMENTATION

#### Field Data and Survey Notes

The following is a list of the minimum data needed:

- 1. Plan view sketch showing layout of the trail.
- 2. If a bridge or elevated walkway is required, establish and describe a temporary benchmark.

NRCS - DELAWARE JANUARY 2003

- 3. Cross-section at all locations where a bridge is required.
- 4. Profiles where elevated walkways are required.
- 5. Record the location and size of all trees or other obstacles that will need to be removed.

#### **Design Data**

Record on appropriate engineering paper. For guidance on the preparation of engineering plans see Chapter 5 of the Engineering Field Handbook - Part 650. The following is a list of the minimum required design data:

- 1. Locate the practice on the farm plan map in the case file.
- 2. Determine soil type and any special restrictions.
- 3. Design the recreation trail and walkway to meet the criteria of this practice standard.
- 4. Show the engineering job class on the plans.
- 5. Plan view sketch, showing the location of the trail.
- 6. If trees or other obstacles are to be removed, show the location and provide a description.
- 7. If bridges or elevated walkways are required, provide detailed drawings and specifications.
- 8. If surfacing is required, provide details and specifications.
- 9. Provide for erosion control on the trail.
- 10. Estimated quantities.
- 11. Planting plan, as required. This must meet the criteria, specifications, and documentation requirements of the conservation practice standard. Show on the plans.
- 12. Written Operation and Maintenance Plan.

Record on survey notepaper, NRCS-ENG-28, or other appropriate engineering paper. Survey data will be plotted in red on the as-built plans. The following is a list of minimum data needed for as-built documentation:

- Documentation of site visits on CPA-6. The documentation shall include the date, who performed the inspection, specifics as to what was inspected, all alternatives discussed and decisions made and by whom.
- 2. Check notes recorded during or after completion of construction the location of the trail and bridge or elevated walkways elevations as appropriate.
- 3. Measure trail length.
- 4. Statement on seeding, as appropriate.
- 5. Final quantities and documentation for quantity changes. Material certifications as appropriate.
- 6. Signature and date on the check-notes and plans of someone with appropriate engineering job approval authority. Include a written statement that the constructed practice meets or exceeds the construction plans and NRCS practice standards.

#### **Construction Check Data/As-Built Plans**

NRCS - DELAWARE JANUARY 2003